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ADDRESS BY JAMES E. WEBB, ADMINISTRATOR, NASA

National Press Club

WEBB: Thank you very much.

Mr. President, fellow space travelers, because even if you are at the Bar, you are really on a spaceship traveling 67,000 miles an hour through space. It seems to me I better quite now after this very wonderful statement of the fact that opening before mankind is this tremendous opportunity to reach out beyond the atmosphere of the earth, and with all these kind words, it seems to me if I could just take that combination of what the President has said and stop, I would be very much ahead, but I would like to rather briefly run over a number of the things that affect this program and where we are at this time and spend most of the time with your questions, rather than to try to go into every facet of a very vast, far-reaching program.

First, let me say that in this period since President Kennedy sent for me and asked me if I would head this agency, and having answered when he said he needed a scientist or engineer or someone thoroughly qualified to know big boosters, he said: "You know this is a policy problem. I would like someone who has had experience with the resolution of large policy questions and the programs to carry them out."

Well, I think the President's forecast of what was ahead of us was prophetic. I think it speaks loads as to his own attitude toward this program and I think it also has a bearing on the situation that we face at this time.

I did have the privilege yesterday of reporting to the President on this program, and how we are proceeding with it and some of the problems that are involved. And in line with this, I did have to report to him that although the program that he presented to the nation and requested careful consideration by the Congress, stating it was a very important program, very long-range, could not be turned on and off at will, and on which the prestige of this nation rested to a very large degree, having presented that and Congress having accepted it as a bipartisan program, having ratified it through authoriza-

tion and appropriation, nevertheless, as I had to report to the President, there was a feeling expressed to me by a number of people in the Congress and outside -- particularly Senator Kerr, Chairman of the Committee, to whom your President has referred -- that a good many people thought the program had moved too fast, that it had been put through in less time and with less debate than was necessary to truly understand the problem and that the Chairman of the Senate Space Committee had now announced hearings beginning on the 26th day of this month to thoroughly explore the program all over again.

So it does seem to me that the President's words that we are engaged in a large policy decision, a decision to advance science and technology at the most rapid rate it can be advanced, over a ten-year period, spending some \$35 billion, in that ten-year period for this process, is one worthy of thorough consideration on a policy level.

Of course, having appeared, I think, between 25 and 30 times before different Congressional committees in the last few months, it did seem to me that with other Congress going away maybe that was all behind me, but it is not.

I do believe this is a very important part of the process by which we in this nation arrive at our decisions. I have never believed that any program, this or an international program, or a banking program, could be isolated from the process of presentation through the Budget to the Congress for a thorough understanding and debate and decision. The sheltered programs do not survive, it seems to me.

I say that from some experience in having the responsibilities at the end of World War II of pulling together through the Corporation Control Act the many activities of the government and some of you who were here in that time remember that we went right through the list, RFC, and all the others, but when we got up to the Federal Deposit Insurance Corporation, Senator Vandenberg stopped us. He said that this business of having the program of FDIC presented to the Congress every year would bring politics into banking and he had enough votes to prove his point.

But, in any event, I do think this process is healthy, and although it takes a great deal of time, I may say that I think I have learned as much from the process as I have taught, in the eight months that this has

developed for me. It seems more like eight years, I might say.

Having referred to the way the President has thought about this program, the courage and vision that I believe he had in putting it forward with his recommendations, the standing aside for the Congress to have its full opportunity at it is important. I think the relationships between the President and the Vice President in this particular area leave also a very splendid concept of how democracy can move on with its work because, as you recall, there is some little bit of a problem when a leader, who has been chairman of the space committee, a vigorous man, who then becomes Vice President, and is asked by the President to proceed to take a leading role in the organization of the country's effort in this field -- a spectacular field, may I point out -- it takes a good bit of doing on the part of both men to find a viable solution that serves the public interest and I may say at every point of decision in this program from the time that the President himself announced the expansion of the big booster program and followed it somewhat later with the manned lunar landing program and the other space sciences programs, right on to the point when it came to the implementation of that decision, the Vice President said to Mr. McNamara and to me and to Chairman Seaborg, "Get together and come up with a program by Monday." Well, this happened to be Friday and the three of us spent the weekend personally on it and the Vice President himself spent the next day on it and then took off for the Far East.

But the point is that he has furnished the intuitive judgment at the critical turning point and the drive that made the very top people in this government, including himself and the President, dig their noses into this problem.

Moving on to the first thing, having presented the program to the Congress, having received ratification, having speeded up the effort in research and development, having adopted manned space flight and to the moon as a major objective, if you please a coordinating objective for the main effort in which we are engaged, having also funded a program to extract from this the benefits that come from such applications of the communications satellites, meteorological satellites, the navigation satellites, and others, the first job after that was the idea of the critical components of the program and the initiation of action, and in this area close work again was done with the Department

of Defense through Secretary McNamara, his associate Dr. Harold Brown, General Schriever, all of the people who were concerned, under the policy that the resources of the government shall be applied where they are and most effectively rather than get into a lot of jurisdictional arguments.

Now, it turned out that under this policy, and looking at the problem of the lunar landing, we had to analyze together some 2,200 discrete tasks that had to be performed.

This is now proceeding through its third effort, with a committee jointly furnished by the Department of Defense, in which the Air Force is taking a very strong part, the National Aeronautics and Space Administration, and others who are concerned.

Further than this, looking to the fact that all of the actions which we take, the money which we spend, goes out about eighty percent in contracts to private industry, universities, and other non-government organizations, and only twenty percent or fifteen percent of the money is reserved for the supervision, the in-house capability that permits the effective execution of the eighty percent of the contracts, I would like to say we have moved on in a number of fields.

First, the big booster program has been worked on by those in the government who represent the fifteen percent, and the contracts are going out. As you know, the S-1 and S-1-B stages of Saturn are slated for production by private industry after the first eleven versions of it are made at Huntsville by Dr. Werner Von Braun. We expect very shortly to have this procurement initiated. It will be substantial.

With respect to the Saturn C-3 version, this is moving very rapidly through this analysis of the discrete tasks that have to be undertaken. There is some consideration being given to how far we can move the rendezvous technique and how the relationship of the configuration of the Saturn C-3 can relate to that problem. If it turns out that we can do a great deal of the work we need to do in space by rendezvous of a number of smaller flight vehicles, in orbit around the earth, join them together, and then proceed on outward to the moon and planets, our problem is quite different than it is if we have one very large rocket, some two-thirds as tall as the Washington Monument, developing perhaps twelve to twenty thousand pounds of thrust in the

first stage and make a direct attack. I am sorry, did I say -- I mean, million; excuse me. Dr. Dryden has corrected me. Thank you.

Now, with respect to the second stage of the Saturn rocket, we yesterday let a contract to the North American Aviation Company for \$140 million to develop this. The S-4 stage has already been under contract for about a year, and we have notified the Joint Congressional Committee on Atomic Energy that we have now proceeded sufficiently with our joint work with Atomic Energy Commission to consider the selection of a contractor for the Rover project.

Now, at some future occasion you may ask General Schriever to come and tell you what the Air Force is doing with respect to the solid rocket, because just as we are using the resources of the Atomic Energy Commission jointly, just as we are using private industry and contractors for the resources they can add to this program, the Air Force has the task of developing the solid propellant version of Nova, which is a very large undertaking, which recognizes the tremendous experience that the Department of Defense has had with the Minuteman, with many other solid propellant rockets that have been so successfully developed for the security of this nation.

Leaving the boosters for a moment and moving on to the spacecraft, I think you all know that we have out requests for competitive proposals. We expect to have these in by the ninth day of October and proceed very expeditiously, perhaps within this calendar year, to select a contractor for the Apollo.

I am sure you all know the Apollo not only has a version that will carry three men in orbit around the earth, but also has three additional sections to be added, the first a service section which will be for long, extended flights and will have the capacity of being jettisoned with batteries and other equipment that may not be needed on returning to the earth's atmosphere.

It also has two propulsion units, one for slowing the vehicle down and landing it on the moon and the last, a propulsion unit capable of lifting it from the moon and returning it to the earth.

Now, a great deal of research and development must be done before all of these things can be brought to

fruition. I just mention one particular problem, the re-entry problem. To start out for the moon, you are going to go about 25,000 miles an hour. You will be going much slower when you get to the moon, but when you take off and return to the earth the pull of gravity will accelerate you back up to about 25,000 miles an hour. So here is a very serious problem of re-entry into the earth's atmosphere, and we have a great deal to learn about this. I think it gives you some idea of the tremendous tasks of research and development ahead of us.

Now, there is a third item, over and above the big boosters, over and above the spacecraft, which are of tremendous importance to this program, which in our analyses in our cases turns out to be the pacing item or the items which will cause the extension of time out beyond the earliest date that might be possible. This is the facilities problem.

I am sure you know that we have, after much careful debate and study, jointly with the Department of Defense and with great help from General Sshriever's group, selected Cape Canaveral as the place, a national launching site, in which the Atlantic Missile Range is going to be expanded very greatly, to take care of these large rockets and under which the Air Force will continue to operate it as a national asset of great value. This will be a very large expansion, about \$60 million is required for the purchase of land alone. An area up to some ten miles in radius of a circle is required to get people out of the noise zone.

We have also announced just within the last few days that we are taking over a government-owned vacant plant of some two million square feet of space at the mouth of the Mississippi River, near New Orleans, for the fabrication of the Saturn and the additional large rockets which are involved in this program.

Next to this, in that same general area, will be a very large static test facility, through which we can not only test the rockets that are fabricated there, but also mate them in some cases with the space crafts that will go with them.

Now, there is another facility that is required. This is under careful study now. It is the so-called manned flight laboratory, which will do the experimental work, will develop the relations with industry, will have large environmental chambers in which the Apollo capsule can be tested.

Now I would like to point out that beyond the Apollo comes a very much larger space station in the minds of many who are concerned with the exploration of space and we must, in planning these facilities, be prepared to handle very much larger vehicles than are now involved with such things as the Apollo. And if we are able, by say 1965, or shortly thereafter, to reach important decisions to make a ten or twelve-man orbiting space station for use as further lunar and planetary exploration, as bases for our communications satellites, our weather satellites, our navigation and other satellites, then these facilities must be planned so that they can take care of very much larger vehicles than we now have in mind for this specific program which the President has requested the country to endorse.

I would like to move very rapidly through just a few other things, because the lunar program has in a sense overshadowed a very much broader program.

You can think of this as a trip to the moon. You can think of it also as I earlier expressed it as an effort to spend in about ten years some thirty-five billions of dollars advancing science and technology at the most rapid rate it can be advanced in terms of energy conversion, new fuel, the life sciences, electronics, communications, systems management, more sophisticated use of electronic data processing, and many, many other things, such as the use of metal.

You find out in space, beyond this very thin apple peel, which your President has used to characterize the atmosphere of the earth, three major conditions that do not exist within any environment which man has heretofore conquered, whether on the surface of the sea, under the sea, or in the air. This is the condition of weightlessness in space flight. It is the condition of the hard vacuum in which metals act very differently than they do when they have an oxidized finish on them, and severe radiation.

Some of you have seen recently studies that were released in California last week, showing that many metals without these oxidized finishes or other protection, simply evaporate in space, or tend to fuse on contact, so that you get all kinds of problems that you do not face within the earth's atmosphere. But here is this new, hostile, difficult, challenging environment, with weightlessness, radiation, and the hard vacuum.

To understand this, to reach out with advanced technology to do the scientific development necessary, to improve our understanding of the universe, to know what it really means to travel in space, we have had to build up the related scientific programs at the same time we are considering these large vehicles which I have been discussing.

Now, in this process, the Jet Propulsion Laboratory at the California Institute of Technology is expanding its relationship with the whole university world on the West Coast. The Ranger program has been increased from five shots to nine and a vast array of scientific satellites, deep space probes and other types of work is underway.

In another field, that of application, which I mentioned very briefly in connection with the space station, I think hardly in the history of this nation has such a major undertaking been developed so rapidly in the field of governmental policy, in the field of action to expedite the tools necessary for any working group, and in the establishment of a base in which private industry and government could cooperate, as in the field of communications satellites.

Here is a vast new area in which satellites which travel round and round the world can serve as relay stations for television, telephone conversations, record traffic, a whole vast array of communications that link mankind close together. But the expenses are very high. The question of whether a sufficient lifetime can be built into these satellites to make them economically feasible is a grave question.

A number of companies are extremely anxious to participate in this field, to spend their own money in research and development. The government has a requirement to furnish the tools for common carrier traffic and to meet many other governmental needs, and then you have the obligation of the common carriers themselves to furnish expanded service to meet the increased needs which are growing very rapidly.

In this kind of condition, the Space Council considered the policies of the government, they made recommendations to the President, and he issued a statement.

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I myself, using the funds appropriated by Congress, let a contract for a governmental research project involving a satellite to Radio Corporation of America, and when AT&T came in, having not won the contest for the experimental work and said "We would like to spend our own money here to advance the state of the art," we determined in the agency, and with our associates in other government departments, like the Federal Communications Commission, that they did indeed have a very real opportunity to make a major contribution, and we are willing to make this freely available as a working tool for whatever instrumentality that was chosen by the government.

We made a contract with them for this purpose, which involved two definite launches, a possibility of two others, and a possible expenditure of some \$24 million by that company.

Now, having done these two things, we found still another attractive and interesting approach that came from the Hughes Aircraft Company, and we have let another contract. So there are three major onward-going development projects to capitalize on this amazing new possibility which can give you world-wide communications at very much reduced cost as against submarine cables.

In the field of meteorology, again under the President's policy of utilizing the resources of the Government, it was decided the Weather Bureau was to be the operating agency, that the National Aeronautics and Space Administration was to do whatever part of the work we were best qualified to do. A request for fifty-three million dollars was sent to the Congress by the Weather Bureau and the Department of Commerce to establish a Weather Meteorological System based on satellite, and in the Space Agency we increased our program with the TIROS so we could keep a TIROS in the air at all times until this new Weather Bureau program could come into being.

As a result of this, following the successful experience we had with Commander Shepard in exposing him here to the scientific world for thorough questioning, and for a laying out on the record of his program, we have followed that now with an invitation to a hundred nations to come to Washington to participate in a workshop on the meteorological satellite. Now that workshop-- The acceptances are coming in. It will proceed very rapidly.

Now in all of this we are approaching another problem which is of the greatest significance, namely, the feeding back into the process of economic growth. I am sure you know this process of economic growth as against the Soviet Union is a matter of grave importance to us. I am sure you recognize that in a decade, when we will be spending thirty-five billion dollars, in the field of science and technology, we will as a nation be increasing, by all the economic forecasts, our gross national product from some 550 or 525 billion dollars to something over 700 billion dollars a year. We will be investing, according to reports of responsible agencies, like the Dodge Report, we will be spending some 700 billion dollars for capital items, and another three or four hundred billion dollars for maintenance and repair. So you have an item of capital investment with maintenance and repair of about a trillion dollars in that ten years.

Now the feedback of advanced science and technology has a tremendous leverage in such a program for a great nation like this; and I may say I am not one who thinks this nation is on its last legs. We are going to move on in the world, and it is going to be this kind of thing that moves us.

Let me say one thing further, very briefly.

We do have a very active and vigorous international program, beyond the weather satellite program; we have a cooperative arrangement with eight different nations in connection with experiments in satellites, and two nations are building their own satellites complete for launching with us. None of this involves United States financing of the other nations' activities. There is no exchange of dollars. Every nation decides what it will do, gets its resources together, does its work with no exchange of money.

With respect to the way I feel about this program, I would like to say I have been tremendously encouraged, in coming back to Washington, at the response to it. We have had a wonderful reception among the Government officials, those of us working at it. The others on the Space Council, such as the Secretary of State, who sees in it tremendous possibilities in connection with our international relations. Many scientists are helping with this. Many who were skeptical about the objective of a lunar landing are now, on second thoughts, beginning to say, "This really does make sense, and I want to have a part in it."

I would just mention two or three of those. Dr. Libby and Dr. DuBridge; and others are taking a very active part with us, where I think at least some of them were skeptical before.

The members of the Federal Council on Science and Technology have expressed great interest. Dr. Jerome Wiesner, the President's Science Advisor and Chairman of the Federal Council, has time and again in those meeting raised these subjects for discussion and participation.

With respect to the personnel problem, I may say I have been tremendously impressed with the growth potential of the employees now of the National Aeronautics and Space Administration. We have a wonderful group of men, beginning with Dr. Dryden, who has had over forty years of thorough experience in advanced science and technology in this

government and a tremendously interesting and almost unique experience in managing large affairs in this field in the government.

We have a very large number of able people. They are going to have their hands full.

We are getting some excellent reception from those we are inviting to participate with us. Some of you may know that Tom Dixon, Vice President of North American Aviation, Rocketdyne Division, one of the two men who is most responsible for the development of the very large booster engines we now have, is joining us on the 18th day of this month. He leaves a Vice Presidency and a salary that I am sure is several times what he will earn in the government.

We have another brilliant and able younger executive, 38 years of age, coming to us from The Siegler Corporation. There are many others showing the kind of interest that I was sure would show up as soon as this program got to be understood.

And we have got a few older heads involved here. Dr. Mervin Kelly, former Chairman of the Bell Telephone Laboratories, whom I have known and worked with for many years, agreed to come in as a special consultant, and is performing most valuable service, is a very wise guide, philosopher and friend to me, to Dr. Dryden, and our other associates. And Mr. Preston Bassett, who has retired as President of the Sperry Gyroscope Company, and who has been Acting President of Brooklyn Polytechnic on occasion since that time, very active in education and science, former President of the Institute of the Aerospace Science, has also agreed to come in with us to look at our relations with universities as a businessman.

Now think about that for a moment: as a businessman.

Dr. Arthur Raymond -- Mr. Arthur Raymond, who is a former Vice President of the Douglas Company, now retired, has not shown up on the job, but he has agreed to come and spend a good deal of time.

I could go on with others, but I think this illustrates the quality of the effort, the kind of men involved in it, and maybe a little bit about how I feel about it.

Thank you.

(Applause)

COSGROVE: Thank you, Mr. Webb.

I might add, gentlemen, that Mr. Webb spoke his piece like a true Kennedy frontiersman, from notes, as have practically all of the members of the new Administration in their speeches they are addressing here at the Club. I could look over his shoulder here and see just a few handwritten notes on this yellow paper, and he didn't hesitate for a minute to go right along.

The first question, Mr. Webb, and I ask you this because we received a number of them almost identically written: How soon will NASA decide on a location for a moon shot research laboratory, and what states are under consideration?

WEBB: Well, I guess there are a lot of questions about that, because we have gone through the problem of the launching site, which I may say was not an easy decision, because to locate all of this kind of thing in one place is something -- and to have to live with it for the next twenty-five or so years, is a hard decision. But we made that with respect to the fact that having selected Cape Canaveral and with Huntsville, Alabama, Dr. Werner von Braun's location being at the other end, another anchor point, you might say on the line, and not wanting to backhaul things from the Cape Canaveral area all the way up the river, and having some concern for the fact that we just had the experience of having the Saturn landlocked for a little while, we felt the mouth of the Mississippi River was the proper location. Very fortunately there was a Government-owned plant, in which the Government invested some fifty million dollars. It would probably cost twice that to reproduce it now. And we selected this area after careful consideration of all possible sites, including, may I say, a very strong and vigorous presentation by the White Sands people that the White Sands Missile Range should be the place to launch these big vehicles, to fabricate them, and built a great complex; and without, I thought, much mercy on me, when you realize that the first stage of these gigantic vehicles would drop somewhere in the United States, even under normal operation, before they got to the ocean, and under abnormal operation -- which does happen in these cases -- you would have had a lot of uncertainty on the part of other people.

But this is just a little sample of what you go through when you have to locate important Government

facilities.

With respect to the laboratory for the man-lunar landing, we do have this requirement now to launch at Cape Canaveral, provided we can work out all the problems of expanding that base. I will say that advisedly, because we do have to take in a lot of land. We have filed a court action for the condemnation of the land and are proceeding with all the other problems that are involved in a very major operating complex, perhaps more complicated than anything in a similar area that we are undertaking.

Now I have mentioned that beyond the Apollo, and in the immediate years ahead, if we really mean to capitalize on a driving forward motion in space, we are going to have to consider large space stations. If we learn enough to know they are not feasible and not worth while, obviously the decision will be not to go forward. If, as those who are most wise in this field believe, we will find it possible to operate with men in space to the advantage of this nation, then it is inconceivable to me this nation will stop with a 3-man orbiting laboratory without the capability that would be possible. It was just as inconceivable to President Kennedy when he decided to go forward from the one man in the Mercury capsule on to the Apollo.

You simply can't stop, if you have the potential of doing something of great importance and where another nation, gaining the technology, finding out how to operate in space, and with your ignorance of it, can put you in a position where you simply cannot be if you expect to retain your position as a great nation.

Now with all of that in mind, we have the problem of the location of this new laboratory that will relate to the spacecraft that will be flown by the rocket. If the rendezvous technique works out, what we will do will be join smaller pieces together, probably in orbit around the earth. If it proves not to be a feasible technique, at least in the early years, then we very likely are going to have to build some things very much larger than the Apollo.

Now the relationship of the place where you design, test, work out all of the components, maybe work for three or five years with a new major development in a machine of this size, is simply not understood by most of the people

who would like to have a Government payroll and a Government installation in their particular state. Witness the desire of White Sands to be the launching place and the fabrication place of these rockets; or at least if they had to be fabricated somewhere else, they ought to be launched there.

But you have to consider water transportation here. And there is no other answer that any engineers or experts in these matters can give. If you can develop a means of moving these very large rockets and very large spacecrafts around, you limit your problem and you limit your expense; and you increase the probability of success if you can have a system which tends to handle in a relatively close area this kind of thing, instead of something that can go through the Panama Canal and can go around the Cape of Florida and back up. All of this is involved in this decision.

There has been pretty strong and vigorous attack made on this by a lot of people who think that somehow they are not going to get all they wish. I would like to say for the President, that where pressures have come on him in this regard, he has made it very clear to me he expected me to make this decision in the light of the national interest. He has intervened in no way to try to favor his own state of Massachusetts, or to rule it out of the game, as has been stated by some prominent people. He has simply said, "I want the job done in the interest of this country. I want it done so we don't have to do it again in a few years; so the potentialities of the future are not foreclosed."

As to the process, we developed certain criteria related to these things that I have talked to you about. We have a 4-man Site Survey Team which has looked at all of the sites that have been offered to us, which has also examined, through the General Services Administration, all of the available airfields and other Ordnance and Navy installations that are being closed up, or would be made available and on the basis of the criteria and the suggestions from others and the material available from Government sources, they chose a number of sites that they thought they should go to and visit and bring back a report.

They returned at the end of last week. They have made a report to Dr. Dryden and me as to the facts they found in this examination, and they are now in the process of examining those presentations that were made to Dr. Dryden and me during the period they were absent on

this trip. And we are now asking them to compare what we have and to assist us in deciding whether additional site survey operations are really necessary to reach the decision.

I have taken the position that if the criteria are not met, then I would not send a Site Survey Team there, by my own instruction, if they did not choose to go from the facts that were available to them in the doing of their work.

Now I have a feeling that, where we had hoped to move more rapidly on this, this may take a little more time than perhaps a few days ago we might have thought, because quite a storm seems to be blowing up about it.

COSGROVE: Mr. Administrator, we anxiously await the report of the site announcement.

Now I have a two-part question: One, when will NASA reorganize to effectively manage the lunar program; and, the second part, Is there any possibility that NASA will have a man in orbital flight this year?

WEBB: Well, I'll take the second one first, and the answer is yes. There is a possibility.

We have stuck very carefully to our statement that we are going to make this flight when we believe we are ready to go, and we have to solve the problems that we have with the equipment, and particularly with the booster, before we go. The unmanned orbital flight with the Atlas and Mercury is very imminent. If nothing except weather interferes with us, it might go within a relatively short period of time.

Now with respect to the organization, I wanted to point out, and maybe I didn't make it clear, that we are going forward with the substantive things that are necessary to be done, such as the contracting, the decisions with respect to facilities, the cooperative arrangements with the other government services. We are not proceeding on a crash basis to appoint a czar or anything of that kind. We are trying to take step by step the building of an organization that will survive and last and do the job in space that this country has to have over a long period of time. I think that you will see emerge out of this process some very strong operating field centers under very strong management, and under better headquarters - field installation relationships than we have had in the past.

Bear in mind this organization is less than four years old. It was made up of a mixture of things that came from many different sources, and the question of how you evolve in a short period of time into a very strong organization is one that takes a good deal of skill and thought.

With respect to program management, we do not expect to put aside these other important things just for the lunar landing. The lunar landing is certainly a most important part of the program of the United States. It is approximately one-half, maybe 60 percent, of the effort. So the organization that we will do, and which you will see come about step by step over the next period of weeks and months, will be aimed at an organization that can last and survive and do a job over about a 10-year period.

COSGROVE: On the subject of reorganization, sir, what percentage of the NASA organization is military? How many are Air Force personnel?

WEBB: Maybe I ought to ask Dr. Dryden to answer that. We have had the closest and most cooperative relationships with the Services.

As you know, the Recovery Forces are largely Navy. They are under Navy command. There are a few Army personnel there. The Air Force has cooperated tremendously in this. You know that the launching ranges we use, both in the Pacific and in the Atlantic, are under the supervision of the Department of Defense. They are the operating agent for all government departments using these agencies.

And in our own immediate organization we have -- what would you say, Hugh? -- fifty or more military personnel assigned to us more or less continuously.

VOICE: There are upwards of two hundred, but many of those are people who are coming out of colleges and discharging their military obligation by assignment to us. In the senior positions there are relatively few.

WEBB: But I will say we are mighty happy to have those who are there, and I have asked --

(Applause)

WEBB: Having been a Reserve Officer in the Marine Corps for over thirty years now, I am not allergic to working with the military people, and I think that the relation-

ship that we have to get on with the work of the United States is splendid. And I may say I have asked the Secretaries of the Forces to assign some additional people, and in the case of all services -- including the Corps of Engineers -- they have volunteered to send me some of their ablest men, and I am delighted.

COSGROVE: This is a question I think you might have answered many times in various ways, but you might want to clear the air here once and for all.

Is there any reason to think that the Russian claims of having put two men into orbit are a gigantic hoax?

WEBB: To me, no.

COSGROVE: Going to another subject, have you determined who or what was to blame for the malfunction which caused the loss of Virgil Grissom's space capsule? And what steps have you taken to avoid such a recurrence?

WEBB: Perhaps --

Would it be all right to let Dr. Dryden answer that question? Is that in order here?

Hugh, do you want to answer that?

DRYDEN: I will try.

WEBB: We have a lot of new equipment, and the purpose of these flights is to test that new equipment and find out what's wrong with it.

DRYDEN: We have not determined exactly what happened in this case. As many of you know, the operating mechanism is a simple mechanical gadget. We are consulting the experts in high explosives at Piccatinny Arsenal and elsewhere to see if we can discover any mechanism by which this could be set off without actual motion of the mechanical switch. The change we are making to avoid it in the future is a very simple one: don't pull the safety switch until you are ready to get out.

(Laughter)

COSGROVE: Thank you, Dr. Dryden.

Another question: If electronic equipment will not

function in a vacuum in a temperature of absolute zero that exists in outer space, how are you going to overcome this?

WEBB: Maybe I better call on Dr. Dryden again.

(Laughter)

WEBB: Is that a question you really want answered in this kind of an audience?

(Laughter)

DRYDEN: Well, I won't pretend to be an electronics expert.

Here on earth we have to surround our electronic gadgetry with glass or metal envelopes and then pump all the gas out in order to get a vacuum. In space we can make our electronic equipment without any envelope at all. So I don't quite understand the purpose of the question.

COSGROVE: I have a few more technical questions that I don't understand either, so I think we will come back to earth.

Here is one you might like to comment on. This is from the current British Flight Magazine, and it says: "When Commander Alan Shepard made his flight in the Mercury capsule, a U.S. news agency put out the story that the cost to each American was on the average of \$2.23; that as a result NASA received letters by the basket inclosing checks for \$2.23, so many it had to set up a special account, and now that runs to five figures."

And the question is: How, please?

WEBB: First of all, someone made a calculation of the cost of the whole project, divided it by the population and came up with this figure, and quite a number of people have been sending us checks for \$2.25. I may say we had others who were so interested they telegraphed money in, larger amounts than that.

Now we have done nothing to encourage this kind of voluntary contribution, because I am sure it is obvious to all of you that there are many, many problems connected with it. There have been a lot of agencies who have telegraphed the President and said: "Dear President Kennedy. If you

will let us conduct a fund-raising drive, we will pay for the whole Space Program with voluntary contributions."

So you have to make a nice line between recognition of the person who really has an honest and sincere desire. So we have established a policy that wherever a gift is sent, that if it is unrestricted, then we accept it and I write a letter over my own signature thanking the person for his interest and stating that it will be used in the space program. Wherever there is any condition attached to the gift, whether it be confined to the lunar landing or some other purpose, we return it.

COSGROVE: Thank you, sir.

Before asking the last question, we want to again thank you for coming here today, and as a token of our appreciation, we have this certificate, as well as a copy of the Press Club's "First Fifty Years Shrdlu."

And the last question, as you know, sir, is not always one that we expect the answer to be given. The answer might be given. It is just one that you might think would be appropriate.

And the question is: One of the Miss America finalists last Saturday night said we should not attempt to put a man on the moon. The question is: Do we agree with her?

And the second part of that question: Would you like to have her on your staff?

(Laughter)

WEBB: Well, does she want to go to the moon? I mean, she says she doesn't want to send a man to the moon and she doesn't say whether she wants to go.

I do not agree with her that we should not send a manned lunar exploration team. I think it is a very important objective. It requires us to press forward with all of the other things that make this possible. And it is in the doing of all the things that the great strength of this nation will arise and be utilized.

I am very fond of the ladies, but I do have a dear lady at home -- two ladies, including my 16-year old

daughter,-- and I am not about to invite another woman into my family.

COSGROVE: Thank you, Mr. Webb.

(Applause)

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